

Nevada Division of Environmental Protection Bureau of Air Pollution Control Calendar Year 2011 Actual Production/Emission Reporting Spreadsheet for Mercury Emissions from the Precious Metals Mining Industry Cumulative Nevada Mercury Control Program (NMCP): Mercury Operating Permit To Construct (MOPTC) Data Submittals								
Pollutant ID	Production/Heat Rate	Production Units (eg. tons/yr)	Emissions Factor	Emissions Factor Units	HG Annual Emissions (lbs/yr)	Hours Operated	HG Co-Product (tons/yr)	Notes
Source: Newmont Mining Corporation - Twin Creeks Mine: AQOP AP1041-0723.01; MOPTC AP1041-2218								
System Description: Juniper Mill Electric Induction Furnace (S2.001/TU4.001 - 1 of 2, only one operates at a time)								
Hg	30.40	tpy	0.00003367	lbs/hr	0.0156	464	0.0000	Induction Furnace emissions factor derived from 2011 M29 stack test.
System Description: Juniper Mill Electric Induction Furnace (S2.001.1/TU4.002 - 1 of 2, only one operates at a time)								
Hg	26.72	tpy	0.00002433	lbs/hr	0.0099	407	0.0000	Induction Furnace emissions factor derived from 2011 M29 stack test.
System Description: Juniper Mill Carbon Kiln (S2.002/TU4.003)								
Hg	5,693.28	tpy	0.0002109	lbs/hr	1.6217	7,689	0.3950	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort Circuit A (S2.004/TU4.004)								
Hg	21.59	tpy	0.000001	lbs/hr	0.0034	3,444	1.5700	Retort A emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort Circuit B (S2.005/TU4.005)								
Hg	23.61	tpy	0.00000083	lbs/hr	0.0027	3,297	2.0290	Retort B emissions factor derived from 2011 M29 stack test.
System Description: Sage Mill Autoclave (S2.023/TU4.014)								
Hg	1,906,327.00	tpy	0.01602	lbs/hr	124.9608	7,800	0.0000	Autoclave #1 emissions factor derived from 2011 M29 stack test.
System Description: Sage Mill Autoclave (S2.024/TU4.015)								
Hg	1,822,525.00	tpy	0.01454	lbs/hr	119.2149	8,199	0.0000	Autoclave #2 emissions factor derived from 2011 M29 stack test.
System Description: Electro-winning Cells (TU4.011 - six cells ducted to common stack)								
Hg	84.52	MMgals/yr	0.01079	lbs/hr	94.5204	8,760	0.0000	Electro-winning Cells emissions factor derived from 2011 M29 stack test.
System Description: Juniper Mill Pregnant & Barren Strip Solution Tanks (TU4.008 - TU4.010)								
Hg	84.52	MMgals/yr	0.01204	lbs/hr	105.4704	8,760	0.0000	Preg./Barren Tanks emissions factor derived from 2011 M29 stack test.
System Description: Pinon Mill Pregnant & Barren Strip Solution Tanks (TU4.012 & TU4.013)								
Hg	49.03	MMgals/yr	0.0002712	lbs/hr	2.3757	8,760	0.0000	Emissions estimate - refer to attached calculation.
System Description: Laboratory Sample Prep. Room, Fire Assay Room, Wet Lab Room, Slurry Prep. Room, LECO Room, Instrumentation Room, Met Lab Room & Autoclave Room								
Hg					3.9775		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
					CY2006 Facility Total: 434.3715		8.9100	CY2006 Co-product: 17,820 lbs/yr
					CY2007 Facility Total: 929.9303		13.2160	CY2007 Co-product: 26,432 lbs/yr.
					CY2008 Facility Total: 1,679.1864		8.8000	CY2008 Co-product: 17,600 lbs/yr.
					CY2009 Facility Total: 425.7559		5.9080	CY2009 Co-product: 11,816 lbs/yr.
					CY2010 Facility Total: 178.8392		5.4670	CY2010 Co-product: 10,934 lbs/yr.
					CY2011 Facility Total: 452.1731		3.9940	CY2011 Co-product: 7,988.00 lbs/yr.
Source: Queenstake Resources USA, Inc. - Jerritt Canyon Mine: AQOP AP1041-0778; MOPTC AP1041-2217								
System Description: West Roaster Process (S2.036 & PF1.213/TU4.001)								
Hg	304,470.00	tpy	0.0057	lbs/hr	26.0433	4,569	0.0000	Roaster emissions factor derived from average of 2011 M29 stack tests.
System Description: East Roaster Process (S2.041 & PF1.214/TU4.002)								
Hg	348,622.00	tpy	0.0059	lbs/hr	29.7714	5,046	0.0000	Roaster emissions factor derived from average of 2011 M29 stack tests.
System Description: Ore Dryer (S2.026/TU4.003)								
Hg	35,496.00	tpy	0.002	lbs/hr	8.5780	4,289	0.0000	Ore Dryer emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort (S2.051/TU4.004)								
Hg	10.00	tpy	0.000222	lbs/hr	0.5170	2,329	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Refining Process Induction Furnace (S2.050/TU4.005)								
Hg	10.00	tpy	0.0034	lbs/hr	2.8254	831	0.0000	Furnace emissions factor derived from 2011 M29 stack test.
System Description: Laboratory Units Including Large Ore Drying Ovens (5 Units) and Electro-winning Cells								
Hg					2.1363		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
					CY2006 Facility Total: 293.9245		2.9600	CY2006 Co-product: 5,920 lbs/yr.
					CY2007 Facility Total: 1,966.3934		1.0200	CY2007 Co-product: 2,040 lbs/yr.
					CY2008 Facility Total: 219.9723		0.7100	CY2008 Co-product: 1,420 lbs/yr.
					CY2009 Facility Total: 138.9704		2.1000	CY2009 Co-product: 4,200 lbs/yr.
					CY2010 Facility Total: 34.9527		11.0380	CY2010 Co-product: 22,076 lbs/yr.
					CY2011 Facility Total: 69.8714		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Newmont Mining Corporation - Gold Quarry: AQOP AP1041-0793; MOPTC AP1041-2219								
System Description: Mill 6 Static Separator (Double Rotator Air Pre-Heater: S2.120/TU4.001)								
Hg	3,093,864.00	tpy	0.000404	lbs/hr	3.0256	7,489	0.0000	Static Separator emissions factor derived from 2011 M29 stack test.
System Description: CFB North and South Ore Preheaters (S2.126 & S2.129/ TU4.002 & TU4.003)								
Hg	3,269,053.00	tpy	0.002657	lbs/hr	20.0391	7,542	0.0000	Ore Preheater's emissions factor derived from 2011 M29 stack test.
System Description: CFB North and South Ore Roasters (S2.133 & S2.145/TU4.004 & TU4.005)								
Hg	3,269,053.00	tpy	0.000284	lbs/hr	2.1419	7,542	2.0500	Ore Roaster's factor derived from 2011 M29 stack test.

Source: Newmont Mining Corporation - Gold Quarry: AQOP AP1041-0793; MOPTC AP1041-2219 (continued)								
System Description: ROTP North Calcine Quench Circuit (S2.158 & S2.159/TU4.006 - TU4.009)								
Hg	1,349,850.00	tpy	0.006039	lbs/hr	45.5220	7,538	0.0000	North Quench Circuit emissions factor derived from 2011 M29 stack test.
System Description: ROTP South Calcine Quench Circuit (S2.160 & S2.161/TU4.010 - TU4.013)								
Hg	1,919,203.00	tpy	0.009026	lbs/hr	68.0741	7,542	0.0000	South Quench Circuit emissions factor derived from 2011 M29 stack test.
System Description: AARL Carbon Stripping Circuit (Pregnant Tanks: TU4.014 & TU4.015)								
Hg	14,104.50	tpy	0.00173	lbs/hr	14.4974	8,380	0.0000	Pregnant Strip Tanks emissions factor derived from 2011 M29 stack test.
System Description: Refinery Barren Tank & Electro-winning Cells (TU4.016 & TU4.017)								
Hg	40,494,430.00	gals/yr	0.001252	lbs/hr	8.8896	7,100	0.0000	Barren Tank/EW Cells emissions factor derived from 2011 M29 stack test.
System Description: Refinery Mercury Retort Circuit (S2.041 - S2.046/TU4.018 - TU4.023)								
Hg	58.30	tpy	0.004894	lbs/hr	14.1730	2,896	1.4900	Retort Circuit emissions factor derived from 2011 M29 stack test.
System Description: Electric Refinery Induction Furnaces (S2.047 - S2.049/TU4.024 - TU4.026)								
Hg	65.00	tpy	0.0017	lbs/hr	0.8680	511	0.0000	Induction Furnace emissions factor derived from 2011 M29 stack test.
System Description: Carbon Kiln #1 (Zadra Building) Scrubber Stack (S2.056/TU4.027)								
Hg	6,826.00	tpy	0.002046	lbs/hr	14.2954	6,987	0.2900	Kiln Scrubber Stack emissions factor derived from 2011 M29 stack test.
System Description: Carbon Kiln #2 (AARL Building) Scrubber Stack (S2.058/TU4.028)								
Hg	6,401.00	tpy	0.004566	lbs/hr	29.1585	6,386	0.0200	Kiln Scrubber Stack emissions factor derived from 2011 M29 stack test.
System Description: Assay Laboratory, Met Laboratory & Integrated Laboratory								
Hg					1.9230		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		310.6937		2.7200	CY2006 Co-product: 5,440 lbs/yr.
			CY2007 Facility Total:		504.4204		6.1600	CY2007 Co-product: 12,320 lbs/yr.
			CY2008 Facility Total:		422.4137		6.7700	CY2008 Co-product: 13,540 lbs/yr.
			CY2009 Facility Total:		280.6857		5.3900	CY2009 Co-product: 10,780 lbs/yr.
			CY2010 Facility Total:		397.1321		5.7000	CY2010 Co-product: 11,400 lbs/yr.
			CY2011 Facility Total:		222.6075		3.8500	CY2011 Co-product: 7,700.00 lbs/yr.
Source: Newmont Mining Corporation - Midas Operations: AQOP AP1041-0766.01; MOPTC AP1041-2253								
System Description: Refinery Furnace #1 (S2.035/TU4.001)								
Hg	72.00	tpy	0.02751	lbs/hr	12.3988	451	0.0000	Furnace #1 emissions factor derived from 2011 M29 stack test.
System Description: Refinery Furnace #2 (S2.036/TU4.002)								
Hg	67.00	tpy	0.01123	lbs/hr	4.4246	394	0.0000	Furnace #2 emissions factor derived from 2011 M29 stack test.
System Description: Retort A (S2.037/TU4.003)								
Hg	106.00	tpy	0.000491	lbs/hr	1.4966	3,048	0.0097	Retort A emissions factor derived from 2011 M29 stack test.
System Description: Retort B (S2.038/TU4.004)								
Hg	69.00	tpy	0.00298	lbs/hr	11.9289	4,003	0.0002	Retort B emissions factor derived from 2011 M29 stack test.
System Description: Assay Laboratory								
Hg				lbs/hr	1.8326		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		17.1801		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		4.2457		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		41.3420		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		6.4395		0.0000	CY2009 Co-product: 0.00 lbs/yr.
			CY2010 Facility Total:		14.2333		0.0000	CY2010 Co-product: 0.00 lbs/yr.
			CY2011 Facility Total:		32.0815		0.0099	CY2011 Co-product: 19.87 lbs/yr.
Source: Barrick, Bald Mountain Mine - Huntington Valley: AQOP AP1041-1362; MOPTC AP1041-2246								
System Description: Propane Fired Carbon Regeneration Kiln (S2.001/TU4.001)								
Hg	191.29	tpy	0.0000056	lbs/hr	0.0115	2,047	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Propane Fired Mercury Retort (S2.002/TU4.002)								
Hg	5.54	tpy	0.00000395	lbs/hr	0.0044	1,111	1.6100	Retort emissions factor derived from 2011 M29 stack test.
System Description: Propane Fired Bullion Furnace (S2.003/TU4.003)								
Hg	3.91	tpy	0.00000829	lbs/hr	0.0008	92	0.0000	Bullion Furnace emissions factor derived from 2011 M29 stack test.
System Description: Electro-winning Circuit (IA1.024/TU4.004) and Barren Strip Solution Tank (TU4.005)								
Hg	6,929,481.00	gals/yr	0.0000144	lbs/hr	0.0570	3,958	0.0000	Electro-winning Cells emissions factor derived from 2011 M29 stack test. Barren Strip Solution Tank vented to a common stack with Electro-winning Cells, therefore, emissions factor is for both units.
System Description: Assay Laboratory								
Hg					3.1462		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		204.3025		2.9400	CY2006 Co-product: 5,880 lbs/yr.
			CY2007 Facility Total:		57.4138		2.2750	CY2007 Co-product: 4,550 lbs/yr.
			CY2008 Facility Total:		278.3220		2.6000	CY2008 Co-product: 5,200 lbs/yr.
			CY2009 Facility Total:		5.8995		1.5600	CY2009 Co-product: 3,120 lbs/yr.
			CY2010 Facility Total:		7.8188		1.4300	CY2010 Co-product: 2,860 lbs/yr.
			CY2011 Facility Total:		3.2198		1.6100	CY2011 Co-product: 3,220.00 lbs/yr.

Source: Kennecott Rawhide Mining Company - Denton-Rawhide Mine: AQOP AP1041-1116.02; MOPTC AP1041-2245								
System Description: Carbon Regeneration Kiln (S2.001/TU4.001)								
Hg	364.60	tpy	0.0000215	lbs/hr	0.0187	8,682	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Electro-winning Circuit (IA3.007/TU4.002)								
Hg	13,109,820.00	gals/yr	0.0000346	lbs/hr	0.1922	5,555	0.0000	Electro-winning Cells emissions factor derived from 2011 M29 stack test.
System Description: Refinery Induction Furnace (S2.004/TU4.003)								
Hg	76.17	tpy	0.0845	lbs/hr	76.8105	909	0.0000	Refinery Furnace emissions factor derived from 2011 M29 stack test.
System Description: System 1 - Mercury Retort (System 2 - S2.002)								
Hg	41.10	tpy	0.000224	lbs/hr	1.4775	6,596	0.0230	Retort emissions factor derived from 2011 M29 stack test.
System Description: Fire Assay Laboratory								
Hg					0.0142		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		351.5928		0.0621	CY2006 Co-product: 124.20 lbs/yr.
			CY2007 Facility Total:		39.5645		0.0276	CY2007 Co-product: 55.20 lbs/yr.
			CY2008 Facility Total:		13.0908		0.0262	CY2008 Co-product: 52.40 lbs/yr.
			CY2009 Facility Total:		12.0029		0.0258	CY2009 Co-product: 51.60 lbs/yr.
			CY2010 Facility Total:		37.6433		0.0079	CY2010 Co-product: 15.80 lbs/yr.
			CY2011 Facility Total:		78.5131		0.0230	CY2011 Co-product: 46.00 lbs/yr.
Source: Hycroft Resources & Development, Inc. - Crofoot/Lewis Project: AQOP AP1041-0334.02; MOPTC AP1041-2255								
System Description: Mercury Retort #1 (TU4.001)								
Hg	151.91	tpy	0.0000903	lbs/hr	0.0572	6,331	23.0700	Retort emissions factor derived from 2011 M29 stack test.
System Description: Smelting Furnace (TU4.002)								
Hg	62.61	tpy	0.0000109	lbs/hr	0.0255	2,340	0.0000	Refinery Furnace emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort #2 (TU4.003)								
Hg	0.00	tpy	0	lbs/hr	0.0000	0	0.0000	Retort did not operate in 2011.
System Description: Assay Laboratory								
Hg					4.4415		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		0.0000		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		0.0000		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		4.5299		0.8000	CY2009 Co-product: 1,600 lbs/yr.
			CY2010 Facility Total:		4.5219		4.2000	CY2010 Co-product: 8,400 lbs/yr.
			CY2011 Facility Total:		4.5242		23.0700	CY2011 Co-product: 46,147.00 lbs/yr.
Source: Antler Peak Gold, Inc. (formerly Metallic Ventures, Inc.): AQOP AP1041-1202; MOPTC AP1041-2248								
System Description: Carbon Stripping & Regeneration (TU4.001 - TU4.003)								
Hg		tpy		lbs/hr	0.0000		0.0000	System (Carbon Kiln; P/B Tanks) did not operate in 2011, not constructed.
System Description: Mercury Retorts (TU4.004 & TU4.005)								
Hg		tpy		lbs/hr	0.0000		0.0000	System did not operate in 2011, not constructed.
System Description: Assay Laboratory & Dore Furnace								
Hg					0.0222		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
			CY2007 Facility Total:		0.0000		0.0000	CY2007 Co-product: 0.00 lbs/yr.
			CY2008 Facility Total:		0.2838		0.0000	CY2008 Co-product: 0.00 lbs/yr.
			CY2009 Facility Total:		0.2838		0.0000	CY2009 Co-product: 0.00 lbs/yr.
			CY2010 Facility Total:		0.0222		0.0000	CY2010 Co-product: 0.00 lbs/yr.
			CY2011 Facility Total:		0.0222		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Coeur D'Alene Mining Corporation - Coeur Rochester Mine: AQOP AP1044-0063.02; MOPTC AP1041-2242								
System Description: Refinery Furnace (TU4.001)								
Hg	55.37	tpy	0.00437	lbs/hr	1.4605	334	0.0000	Refinery Furnace emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retorts (TU4.002 & TU4.003)								
Hg	89.76	tpy	0.0000043	lbs/hr	0.0114	2,640	11.2000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Assay Laboratory								
Hg					1.8805		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		2.8872		16.1000	CY2006 Co-product: 32,200.00 lbs/yr.
			CY2007 Facility Total:		137.0958		15.4000	CY2007 Co-product: 30,800.00 lbs/yr.
			CY2008 Facility Total:		9.9144		15.6000	CY2008 Co-product: 31,200.00 lbs/yr.
			CY2009 Facility Total:		4.4097		10.7000	CY2009 Co-product: 21,400.00 lbs/yr.
			CY2010 Facility Total:		2.6426		12.3000	CY2010 Co-product: 24,600.00 lbs/yr.
			CY2011 Facility Total:		3.3523		11.2000	CY2011 Co-product: 22,400.00 lbs/yr.

Source: Newmont Mining Corporation - Lone Tree Mine: AQOP AP1041-0059; MOPTC AP1041-2251								
System Description: Electro-winning Cells (East Stack)								
Hg	0.00	gals/yr	0	lbs/hr	0.0000	0	0.0000	EW Cells were decommissioned throughout 2011. Lone Tree remains in temporary closure, but is securing permits to recommence operations.
System Description: Electro-winning Cells (West Stack)								
Hg	0.00	gals/yr	0	lbs/hr	0.0000	0	0.0000	EW Cells were decommissioned throughout 2011. Lone Tree remains in temporary closure, but is securing permits to recommence operations.
System Description: Electro-winning Cells (Scavenger Stack)								
Hg	0.00	gals/yr	0	lbs/hr	0.0000	0	0.0000	EW Cells were decommissioned throughout 2011. Lone Tree remains in temporary closure, but is securing permits to recommence operations.
System Description: Pregnant and Barren Solution Tanks								
Hg	0.00	tpy - carbon	0	lbs/hr	0.0000	0	0.0000	P/B Tanks were decommissioned throughout 2011. Lone Tree remains in temporary closure, but is securing permits to recommence operations.
System Description: Sample Room, Fire Assay Room, Wet Laboratory, LECO Laboratory, Met Laboratory								
Hg					1.8788		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
					CY2006 Facility Total: 622.1013		0.0000	CY2006 Co-product: 0.00 lbs/yr.
					CY2007 Facility Total: 148.0964		0.0000	CY2007 Co-product: 0.00 lbs/yr.
					CY2008 Facility Total: 67.1251		0.0000	CY2008 Co-product: 0.00 lbs/yr.
					CY2009 Facility Total: 7.2136		0.0000	CY2009 Co-product: 0.00 lbs/yr.
					CY2010 Facility Total: 3.0212		0.0000	CY2010 Co-product: 0.00 lbs/yr.
					CY2011 Facility Total: 1.8788		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Barrick Cortez, Inc. - Cortez Hills and Pipeline Projects: AQOP AP1041-2141; MOPTC AP1041-2220								
System Description: Refinery Induction Furnace #1 (S2.002/TU4.003)								
Hg	45.80	tpy	0.000127	lbs/hr	0.0512	403	0.0000	Refinery Furnace emissions factor derived from 2011 M29 stack test.
System Description: Refinery Induction Furnace #2 (S2.003/TU4.004)								
Hg	2.10	tpy	0.000174	lbs/hr	0.0071	41	0.0000	Refinery Furnace emissions factor derived from 2011 M29 stack test.
System Description: Electric Carbon Reactivation Kiln #1 (S2.007/TU4.005)								
Hg	478.20	tpy	0.0000799	lbs/hr	0.0784	982	0.0000	Carbon Kiln #1 emissions factor derived from 2011 M29 stack test.
System Description: Electric Carbon Reactivation Kiln #2 (S2.008/TU4.006)								
Hg	34.60	tpy	0.00000457	lbs/hr	0.0004	78	0.0000	Carbon Kiln #2 emissions factor derived from 2010 M29 stack test. Major component failure forced repairs delaying 2011 testing.
System Description: East Electro-winning Cells (IA1.096/TU4.001)								
Hg	23,243,850.00	gals/yr	0.0000801	lbs/hr	0.7017	8,760	0.0000	EW Cells emissions factor derived from 2011 M29 stack test.
System Description: West Electro-winning Cells (IA1.097/TU4.002)								
Hg	23,484,096.00	gals/yr	0.00019	lbs/hr	1.6644	8,760	0.0000	EW Cells emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retorts (TU4.010 & TU4.011)								
Hg	5.40	tpy/ea.	0.00183	lbs/hr	0.8253	451	0.7200	Retort emissions factor derived from 2011 M29 stack test with both retorts operating. Retort #1 operated 440 hrs. & Retort #2 operated 461 hrs.
System Description: Pregnant and Barren Strip Solution Tanks (TU4.008 & TU4.009)								
Hg	47,351,605.00	gals/yr		lbs/hr	0.0000		0.0000	Preg./Barren Tanks emissions factor derived from 2011 M29 stack test.
System Description: Assay Laboratory (Analytical Lab Building), Met Laboratory, Strip Circuit Area (Mill Building), Refinery Gold Sludge Drying Oven, Fire Assay Fusion Furnaces								
Hg					1.8530		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
					CY2006 Facility Total: 166.7059		0.1200	CY2006 Co-product: 240 lbs/yr.
					CY2007 Facility Total: 208.0466		0.3200	CY2007 Co-product: 640 lbs/yr.
					CY2008 Facility Total: 75.8638		0.0000	CY2008 Co-product: 0.00 lbs/yr.
					CY2009 Facility Total: 1.3905		0.0170	CY2009 Co-product: 34 lbs/yr.
					CY2010 Facility Total: 5.1862		0.0000	CY2010 Co-product: 0.00 lbs/yr.
					CY2011 Facility Total: 5.1815		0.7200	CY2011 Co-product: 1,441.00 lbs/yr.
Source: Florida Canyon Mining, Inc. - Florida Canyon Mine: AQOP AP1041-0106.02; MOPTC AP1041-2256								
System Description: Mercurt Retort (System 6 - S2.003/TU4.004)								
Hg	9.47	tpy	0.00000245	lbs/hr	0.0023	954	1.2700	Retort emissions factor derived from 2011 M29 stack test.
System Description: Mercurt Retort (System 6 - S2.004/TU4.005)								
Hg	1.03	tpy	0.00000232	lbs/hr	0.0002	104	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Electro-winning Cell A (TU4.002)								
Hg	15.17	tpy	0.0000431	lbs/hr	0.3675	8,526	0.0000	Electro-winning Cells emissions factor derived from 2011 M29 stack test.
System Description: Electro-winning Cell B (TU4.003)								
Hg	15.17	tpy	0.0000396	lbs/hr	0.3376	8,526	0.0000	Electro-winning Cells emissions factor derived from 2011 M29 stack test.
System Description: Carbon Regeneration Kiln (System 9 - S2.007/TU4.008)								
Hg	6.91	tpy	0.00899	lbs/hr	48.0066	5,340	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Dore Furnace (System 7 - S2.005/TU4.001)								
Hg	8.71	tpy	0.0000178	lbs/hr	0.0057	320	0.0000	Dore Furnace emissions factor derived from 2011 M29 stack test.

Source: Florida Canyon Mining, Inc. - Florida Canyon Mine: AQOP AP1041-0106.02; MOPTC AP1041-2256 (continued)								
System Description: Pregnant Tank (TU4.006)								
Hg		hrs/yr		lbs/hr	0.0000	0.0000	No emissions factor available - closed circuit.	
System Description: Barren Tank (TU4.007)								
Hg		hrs/yr		lbs/hr	0.0000	0.0000	No emissions factor available - closed circuit.	
System Description: Assay Laboratory								
Hg					3.0090	0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2006 Facility Total:		440.7382	0.2264	CY2006 Co-product: 452.80 lbs/yr.	
			CY2007 Facility Total:		19.0000	0.0072	CY2007 Co-product: 14.40 lbs/yr.	
			CY2008 Facility Total:		162.3117	0.2875	CY2008 Co-product: 575 lbs/yr.	
			CY2009 Facility Total:		49.6118	0.8120	CY2009 Co-product: 1,624 lbs/yr.	
			CY2009 Facility Total:		111.8133	0.3090	CY2010 Co-product: 618 lbs/yr.	
			CY2011 Facility Total:		51.7290	1.2700	CY2011 Co-product: 2,538.00 lbs/yr. (1,829.00 liquid; 709.00 sludge)	
Source: Round Mountain Gold Corporation - Smoky Valley Common Operation: AQOP AP1041-0444.01; MOPTC AP1041-2250								
System Description: Carbon Regeneration Kiln (S2.121/TU4.001)								
Hg	2,928.00	tpy	0.000225	lbs/hr	1.9710	8,760	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Pregnant Strip Solution Tank (Shares a common stack with S2.121/TU4.002)								
Hg	40.00	gals/min		lbs/hr	0.0000		0.0000	The Pregnant Strip Solution Tank and both Barren Strip Solution Tanks are vented to a common stack with the Carbon Kiln. Therefore, the emissions factor is for all four units running simultaneously and emissions are calculated using the highest hours of operations value of the four units. The Carbon Kiln actually operated 8,688 hours for the year with the remaining units operating 8,760 each.
System Description: Barren Strip Solution Tank #1 (Shares a common stack with S2.121/TU4.003)								
Hg	40.00	gals/min		lbs/hr	0.0000		0.0000	
System Description: Barren Strip Solution Tank #2 (Shares a common stack with S2.121/TU4.004)								
Hg	40.00	gals/min		lbs/hr	0.0000		0.0000	
System Description: Electric Induction Furnace (S2.130/TU4.005)								
Hg	38.00	tpy	0.0036	lbs/hr	1.5984	444	0.0000	Induction Furnace emissions factor derived from 2011 M29 stack test.
System Description: Refinery Electro-winning Vent & Ovens, Assay Laboratory Ovens.								
Hg					3.0680		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		57.0585	0.0085	CY2006 Co-product: 17 lbs/yr.	
			CY2007 Facility Total:		59.6652	0.0000	CY2007 Co-product: 0.00 lbs/yr.	
			CY2008 Facility Total:		8.3173	0.0000	CY2008 Co-product: 0.00 lbs/yr.	
			CY2009 Facility Total:		4.5878	0.0000	CY2009 Co-product: 0.00 lbs/yr.	
			CY2010 Facility Total:		4.4525	0.0000	CY2010 Co-product: 0.00 lbs/yr.	
			CY2011 Facility Total:		6.6374	0.0000	CY2011 Co-product: 0.00 lbs/yr.	
Source: Homestake Mining Company of California - Ruby Hill Mine: AQOP AP1041-0713.01; MOPTC AP1041-2252								
System Description: Electric Carbon Regeneration Kiln (S2.019/TU4.001)								
Hg	0.00	tpy	0	lbs/hr	0.0000	0	0.0000	Carbon Kiln did not operate in 2011. Kiln was decommissioned 04/25/11.
System Description: Electric Mercury Retort (S2.022/TU4.003)								
Hg	0.83	tpy	0.000129	lbs/hr	0.0253	197	0.0495	Retort emissions factor derived from 2010 M29 stack test. Retort was decommissioned 04/25/11.
System Description: Electric Refinery Induction Furnace (S2.013/TU4.002)								
Hg	0.72	tpy	0.000163	lbs/hr	0.0025	16	0.0000	Furnace emissions factor derived from 2010 M29 stack test. Furnace was decommissioned 04/25/11.
System Description: Electro-winning Cells 1 & 2 (IA1.005/TU4.004) and Pregnant and Barren Strip Solution Tanks (TU4.005)								
Hg	Not Reported	gals/yr	0.00377	lbs/hr	9.7304	2,581	0.0000	Electro-winning Cells emissions factor derived from 2010 M29 stack test. Pregnant and Barren Strip Solution Tanks vented to a common stack with Electro-winning Cells, therefore, emissions factor is for both units. All thermal units/systems were decommissioned 04/25/11.
System Description: Assay Laboratory								
Hg					1.3818		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
			CY2006 Facility Total:		28.7825	0.5000	CY2006 Co-product: 1,000 lbs/yr.	
			CY2007 Facility Total:		35.2201	0.3800	CY2007 Co-product: 760 lbs/yr.	
			CY2008 Facility Total:		1.3883	0.2400	CY2008 Co-product: 480 lbs/yr.	
			CY2009 Facility Total:		7.2874	0.1762	CY2009 Co-product: 352.40 lbs/yr.	
			CY2010 Facility Total:		34.4158	0.0000	CY2010 Co-product: 0.00 lbs/yr.	
			CY2011 Facility Total:		11.1401	0.0495	CY2011 Co-product: 99.00 lbs/yr.	
Source: Marigold Mining Company - Marigold Mine: AQOP AP1041-0158.02; MOPTC AP1041-2254								
System Description: Carbon Regeneration Kiln (S2.013A/TU4.001)								
Hg	540.70	tpy	0.00000377	lbs/hr	0.0078	2,080	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort (S2.014/TU4.002)								
Hg	9.80	tpy	0.0011	lbs/hr	1.3507	1,228	1.0500	Retort emissions factor derived from 2011 M29 stack test.
System Description: Tilting Crucible Furnace (S2.015/TU4.003)								
Hg	6.40	tpy	0.00337	lbs/hr	0.8021	238	0.0000	Furnace emissions factor derived from 2011 M29 stack test.

Source: Marigold Mining Company - Marigold Mine: AQOP AP1041-0158.02; MOPTC AP1041-2254 (continued)								
System Description: Electro-winning Circuit (TU4.004)								
Hg	44,430.00	tpy	0.0011	lbs/hr			Electro-winning Cells emissions factor derived from 2011 M29 stack test. Pregnant and Barren Strip Solution Tanks vented to a common stack with Electro-winning Cells, therefore, emissions factor is for all three units.	
System Description: Pregnant Strip Solution Tank (TU4.005)								
Hg		tpy		lbs/hr				
System Description: Barren Strip Solution Tank (TU4.006)								
Hg		tpy		lbs/hr	6.9612	6,328	0.0000	
System Description: Assay Laboratory								
Hg					2.0489		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2006 Facility Total:		908.0610		0.1675	
			CY2006 Co-product:				335 lbs/yr.	
			CY2007 Facility Total:		5.2255		0.2450	
			CY2007 Co-product:				490 lbs/yr.	
			CY2008 Facility Total:		10.4883		0.5690	
			CY2008 Co-product:				1,138 lbs/yr.	
			CY2009 Facility Total:		4.4540		0.8160	
			CY2009 Co-product:				1,632 lbs/yr.	
			CY2010 Facility Total:		9.3695		1.0330	
			CY2010 Co-product:				2,066 lbs/yr.	
			CY2011 Facility Total:		11.1707		1.0500	
			CY2011 Co-product:				2,100.00 lbs/yr.	
Source: Borealis Mining Company: AQOP AP1041-2125; MOPTC AP1041-2228								
System Description: Deep Bed Carbon Scrubber: Carbon Regeneration Kiln								
Hg					0.0000		0.0000	
							System not yet constructed in 2011.	
System Description: Deep Bed Carbon Scrubber: Mercury Retort								
Hg					0.0000		0.0000	
							System not yet constructed in 2011.	
System Description: Deep Bed Carbon Scrubber: Smelting Furnace								
Hg					0.0000		0.0000	
							System not yet constructed in 2011.	
System Description: Deep Bed Carbon Scrubber: Solutions Circuit								
Hg					0.0000		0.0000	
							System not yet constructed in 2011.	
			CY2006 Facility Total:		0.0000		0.0000	
			CY2006 Co-product:				0.00 lbs/yr.	
			CY2007 Facility Total:		0.0000		0.0000	
			CY2007 Co-product:				0.00 lbs/yr.	
			CY2008 Facility Total:		0.0000		0.0000	
			CY2008 Co-product:				0.00 lbs/yr.	
			CY2009 Facility Total:		0.0000		0.0000	
			CY2009 Co-product:				0.00 lbs/yr.	
			CY2010 Facility Total:		0.0000		0.0000	
			CY2010 Co-product:				0.00 lbs/yr.	
			CY2011 Facility Total:		0.0000		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	
Source: Barrick Turquoise Ridge, Inc. - Getchell Mine: AQOP AP1041-0292.01; MOPTC AP1041-2249								
System Description: Assay/Met Laboratory								
Hg					4.9462		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2006 Facility Total:		10.6752		0.0000	
			CY2006 Co-product:				0.00 lbs/yr.	
			CY2007 Facility Total:		4.9660		0.0000	
			CY2007 Co-product:				0.00 lbs/yr.	
			CY2008 Facility Total:		4.9462		0.0000	
			CY2008 Co-product:				0.00 lbs/yr.	
			CY2009 Facility Total:		4.9462		0.0000	
			CY2009 Co-product:				0.00 lbs/yr.	
			CY2010 Facility Total:		4.9462		0.0000	
			CY2010 Co-product:				0.00 lbs/yr.	
			CY2011 Facility Total:		4.9462		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	
Source: Noble Technologies Corp.: AQOP AP1041-2634; MOPTC AP1041-2701								
System Description: Furnaces (3 Drying, 1 Smelting)								
Hg					4.0026		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2010 Facility Total:		4.0026		0.0000	
			CY2010 Co-product:				0.00 lbs/yr.	
			CY2011 Facility Total:		4.0026		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	
Source: Tonkin Springs, LLC: AQOP AP1041-0482.03; MOPTC AP1041-2726								
System Description: Assay Laboratory (2 Grieve Drying Ovens)								
Hg					4.9200		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2010 Facility Total:		4.9200		0.0000	
			CY2010 Co-product:				0.00 lbs/yr.	
			CY2011 Facility Total:		4.9200		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	
Source: Plum Mining Company, LLC: AQOP AP1041-2761; MOPTC AP1041-2690								
System Description: Mercury Retort (S2.XXX/TU4.001)								
Hg		tpy		lbs/hr	0.0000		0.0000	
							Retort did not operate in CY2011, not yet constructed.	
System Description: Refinery Furnace (S2.XXX/TU4.002)								
Hg		tpy		lbs/hr	0.0000		0.0000	
							Furnace did not operate in CY2011, not yet constructed.	
System Description: Assay Laboratory (12 Thermal Units)								
Hg					0.0309		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2011 Facility Total:		0.0309		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	
Source: Mineral Ridge Gold, LLC: AQOP AP1041-2733; MOPTC AP1041-2222								
System Description: Assay Laboratory (9 Thermal Units)								
Hg					2.1256		0.0000	
							Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.	
			CY2011 Facility Total:		2.1256		0.0000	
			CY2011 Co-product:				0.00 lbs/yr.	

Source: Eden Research, LLC: AQOP AP1041-2511; MOPTC AP1041-2638								
System Description: Assay Laboratory								
Hg					2.7982		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2009 Facility Total:	2.7962		0.0000	CY2009 Co-product: 0.00 lbs/yr.
				CY2010 Facility Total:	2.7962		0.0000	CY2010 Co-product: 0.00 lbs/yr.
				CY2011 Facility Total:	2.7982		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Royal Standard Minerals, Inc. - Manhattan Mine: AQOP AP1041-1457; MOPTC AP1041-2303								
System Description: Dore Smelting Furnace								
Hg					4.1040		0.0000	Facility did not operate in 2011 Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	0.0000		0.0000	CY2006 Co-product: 0.00 lbs/yr.
				CY2007 Facility Total:	4.1040		0.0000	CY2007 Co-product: 0.00 lbs/yr.
				CY2008 Facility Total:	4.1040		0.0000	CY2008 Co-product: 0.00 lbs/yr.
				CY2009 Facility Total:	4.1040		0.0000	CY2009 Co-product: 0.00 lbs/yr.
				CY2010 Facility Total:	4.1040		0.0000	CY2010 Co-product: 0.00 lbs/yr.
				CY2011 Facility Total:	4.1040		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Newmont Mining Corporation - Phoenix Mine: AQOP AP1041-0220.02; MOPTC AP1041-2247								
System Description: Electric Carbon Regeneration Kiln (S2.002/TU4.001)								
Hg	2,763.00	tpy	0.0000016	lbs/hr	0.0074	4,606	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retort (S2.014/TU4.002)								
Hg	28.00	tpy	0.0000001	lbs/hr	0.0003	2,574	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tanks								
Hg					0.0940		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
System Description: Electro-winning Cells								
Hg					0.2733		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
				CY2006 Facility Total:	2.3061		0.0000	CY2006 Co-product: 0.00 lbs/yr.
				CY2007 Facility Total:	0.4579		0.0000	CY2007 Co-product: 0.00 lbs/yr.
				CY2008 Facility Total:	0.8053		0.0000	CY2008 Co-product: 0.00 lbs/yr.
				CY2009 Facility Total:	1.3102		0.0000	CY2009 Co-product: 0.00 lbs/yr.
				CY2011 Facility Total:	0.3749		0.0000	CY2011 Co-product: 0.00 lbs/yr.
Source: Barrick Goldstrike Mines, Inc.: AQOP AP1041-0739.01; MOPTC AP1041-2221								
System Description: North Roaster Mill Circuit #1 Air Pre-Heater and Dry Grinding Process (S2.204 & S2.205.01 - S2.205.12/TU4.001)								
Hg	2,618,490.00	tpy	0.000967	lbs/hr	7.549369	7,807	0.0000	Mill Circuit #1 emissions factor derived from avg. of 2011 M29 stack tests.
System Description: South Roaster Mill Circuit #2 Air Pre-Heater and Dry Grinding Process (S2.206 & S2.207.01 - S2.207.12/TU4.002)								
Hg	2,574,066.00	tpy	0.000358	lbs/hr	2.841446	7,937	0.0000	Mill Circuit #2 emissions factor derived from 2011 M29 stack test.
System Description: Roasters #1 & #2 (S2.209.1 & S2.209.2/TU4.003 & TU4.004)								
Hg	5,519,401.00	tpy	0.0554	lbs/hr	432.8402	7,813	0.0000	Roaster Circuit emissions factor derived from 2011 M29 stack test. Testing was conducted during dual Roaster operations. Annual hours operated is the average of individual Roaster operations. Roaster #1 operated 7,753 hrs/yr, Roaster #2 operated 7,872 hrs/yr.
System Description: North Roaster Circuit #1 Quenching Process (S2.210/TU4.005)								
Hg	2,867,177.00	tpy	0.00121	lbs/hr	9.38113	7,753	0.0000	Quench Circuit #1 emissions factor derived from 2011 M29 stack test.
System Description: South Roaster Circuit #2 Quenching Process (S2.211/TU4.006)								
Hg	2,652,217.00	tpy	0.00156	lbs/hr	12.28032	7,872	0.0000	Quench Circuit #2 emissions factor derived from 2011 M29 stack test.
System Description: Analytical Assay Laboratory (S2.051/TU4.007)								
Hg	37.00	tpy	0.0013	lbs/hr	11.3880	8,760	0.0000	Assay Lab emissions factor derived from 2011 M29 stack test.
System Description: Carbon Reactivation Kiln (S2.004.1/TU4.008)								
Hg	6,799.00	tpy	0.00165	lbs/hr	10.5666	6,404	0.0000	Carbon Kiln emissions factor derived from 2011 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tanks - Circuit A (TU4.009 & TU4.011)								
Hg	Not Reported	gals/yr	0.00921	lbs/hr	80.6796	8,760	0.0000	Preg./Barren Tanks A emissions factor derived from 2011 M29 stack test.
System Description: Pregnant & Barren Strip Solution Tanks - Circuit B (TU4.010 & TU4.012)								
Hg	Not Reported	gals/yr	0.00112	lbs/hr	9.8112	8,760	0.0000	Preg./Barren Tanks B emissions factor derived from 2011 M29 stack test.
System Description: Autoclave #1 (S2.015/TU4.013)								
Hg		tpy		lbs/hr	0.0000		0.0000	Acidic Operation Autoclave #1 did not operate in acidic mode during 2011.
System Description: Autoclave #1 (S2.015/TU4.013)								
Hg		tpy		lbs/hr	0.0000		0.0000	Alkaline Operation Autoclave #1 did not operate in alkaline mode during 2011.

Source: Barrick Goldstrike Mines, Inc.: AQOP AP1041-0739.01; MOPTC AP1041-2221 (continued)								
System Description: Autoclaves #2 & 3 (S2.016 & S2.017/TU4.014 & TU4.015))				Acidic Operation				
Hg	509,298.00	tpy	0.00232	lbs/hr	4.9254	2,123	0.0000	Autoclaves #2 & 3 emissions factor derived from 2011 M29 stack test. Testing was conducted during dual Autoclave operation and only during acidic operations mode. Annual hours operated is the average of individual Autoclave operations. Autoclave #2 (TU4.014) operated 1,844 hrs/yr; Autoclave #3 (TU4.015) operated 2,402 hrs/yr.
System Description: Autoclaves #2 & 3 (S2.016 & S2.017/TU4.014 & TU4.015))				Alkaline Operation				
Hg		tpy		lbs/hr	0.0000		0.0000	Autoclaves #2 & 3 did not operate in alkaline mode during 2011.
System Description: Autoclave #4 (S2.018/TU4.016)				Acidic Operation				
Hg	476,396.00	tpy	0.0003	lbs/hr	1.1055	3,685	0.0000	Autoclave #4 emissions factor derived from 2011 M29 stack test.
System Description: Autoclaves #5 & 6 (S2.019 & S2.020/TU4.017 & TU4.018))				Acidic Operation				
Hg	872,183.00	tpy	0.0019	lbs/hr	6.3973	3,367	0.0000	Autoclaves #5 & 6 emissions factor derived from 2011 M29 stack test. Testing was conducted during dual Autoclave operation and only during acidic operations mode. Annual hours operated is the average of individual Autoclave operations. Autoclave #5 (TU4.017) operated 3,827 hrs/yr; Autoclave #6 (TU4.018) operated 2,906 hrs/yr.
System Description: Autoclaves #4 - 6 Phase 2 Modified for Alkaline Operations (S2.018 - S2.020/TU4.016 - TU4.018)								
Hg	961,989.00	tpy	0.000135	lbs/hr	0.4149	3,073	0.0000	Autoclaves #4 - 6 emissions factor derived from 2012 M29 stack test conducted 01/18/12. Testing was conducted during simultaneous ops. Annual hours operated is the average of individual Autoclave operations. Autoclave #4 (TU4.016) operated 3,342 hrs/yr. Autoclave #5 (TU4.017) operated 2,985 hrs/yr. Autoclave #6 (TU4.018) operated 2,891 hrs/yr.
System Description: Mercury Retorts #1 (S2.009/TU4.019)								
Hg	30.00	tpy	0.00315	lbs/hr	5.6448	1,792	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retorts #2 (S2.010/TU4.020)								
Hg	35.00	tpy	0.00614	lbs/hr	13.5510	2,207	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retorts #3 (S2.011/TU4.021)								
Hg	35.00	tpy	0.000768	lbs/hr	1.7518	2,281	0.0000	Retort emissions factor derived from 2011 M29 stack test.
System Description: Mercury Retorts #1 - #3 (Cumulative Co-product)								
Hg							59.9200	Cumulative co-product for all three mercury retorts.
System Description: East & West Refinery Furnaces & Electro-winning Cells combined vented through a common carbon filter and stack (S2.013 & S2.014/TU4.022 & TU4.023)								
Hg	81.00	tpy	0.00391	lbs/hr	1.9980	511	0.0000	Furnaces's/EW Cells emissions factor derived from 2011 M29 stack test. Testing was conducted during dual Furnace and EW Cell operations. Annual hours operated is the average of individual Furnace operations. East Furnace (TU4.022) operated 515 hrs/yr; West Furnace (TU4.023) operated 507 hrs/yr.
System Description: Electro-winning Cells only (TU4.024)								
Hg	Not Reported	gals/yr	0.00181	lbs/hr	12.9759	7,169	0.0000	EW Cells emissions factor derived from 2011 M29 stack test while the Furnaces were not operating. Total EW Cell operating hours were 7,680 hrs/yr. Combined Furnace/EW Cell operating hours of 511 hrs/yr. was subtracted from total hours operated to arrive at 7,169 hours of EW Cell operations only.
System Description: Assay, Mill, Mill Met, Autoclave, Autoclave Met and Roaster Pumphouse Laboratories, Strip Circuit Area and Ore Fines Fee System.								
Hg					4.4495		0.0000	Potential to emit (PTE), not actual - see De Minimis Designation Tech. Rev.
					CY2006 Facility Total: 616.7650		98.5500	CY2006 Co-product: 197,100 lbs/yr.
					CY2007 Facility Total: 708.6590		58.6300	CY2007 Co-product: 117,260 lbs/yr.
					CY2008 Facility Total: 166.0557		87.3300	CY2008 Co-product: 134,660 lbs/yr.
					CY2009 Facility Total: 369.7831		61.8730	CY2009 Co-product: 123,746 lbs/yr.
					CY2010 Facility Total: 266.9336		60.1080	CY2010 Co-product: 120,216 lbs/yr.
					CY2011 Facility Total: 630.5519		59.9200	CY2011 Co-product: 119,840.00 lbs/yr.

CY 2011 Cumulative Totals		
Process Emissions (lbs/yr)		Co-Product (tpy)
1,607.96		106.77
		Co-product: 213,540 lbs/yr

Note that the total value is lower than actual industry-wide emissions due to a few thermal units which were unable to test in the reporting year and the absence of 2009 test data for Barrick Goldstrike's autoclaves under alkaline operating conditions. See 2009 Report for details.



CY 2010 Cumulative Totals		
Process Emissions (lbs/yr)		Co-Product (tpy)
1,134.15		101.59

CY 2010 process emissions were solely derived using one consistent FRM testing methodology (Method 29). Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy.
Co-product: 203,180 lbs/yr

CY 2009 Cumulative Totals		
Process Emissions lbs/yr		Co-Product tpy
1,336.46		90.18

CY 2009 process emissions were solely derived using one consistent FRM testing methodology (Method 29). Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy. In general, testing went much better in 2009 than in 2008 with far fewer testing irregularities or instances where test results were invalidated.
Co-product: 180,360 lbs/yr

CY 2008 Cumulative Totals		
Process Emissions lbs/yr		Co-Product tpy
3,165.90		102.93

CY 2008 process emissions were largely derived using one consistent FRM testing methodology (Method 29). Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy. Some facilities had entire testing events, or in some cases just one or more runs of a test event, invalidated due to irregularities in testing protocol, poor sample handling procedures or laboratory errors. Yukon-Nevada Corporation - Jeritt Canyon Mine (formerly Queenstake Resources) did not test in 2008 due to the temporary NDEP ordered shutdown of the facility.
Co-product: 205,860 lbs/yr

CY 2007 Cumulative Totals		
Process Emissions lbs/yr		Co-Product tpy
4,764.52		97.68

CY 2007 process emissions were largely derived using one consistent FRM testing methodology (Method 29) with scattered M101A and OHM results used in lieu of M29 due to test schedule conflicts/logistics issues. Testing protocols were reviewed prior to test commencement and all final report submittals were reviewed to ensure reporting accuracy.
Co-product: 195,360 lbs/yr

CY 2006 Cumulative Totals		
Process Emissions lbs/yr		Co-Product tpy
4,468.15		133.26

CY 2006 process emissions and co-product values were accepted "as submitted" due to variability in testing methodology, emission calculation methods and/or the lack of current FRM test results.
Co-product: 266,520 lbs/yr